

ABSTRACT OF THE DISCLOSURE

A method and device for the continuous non-invasive measurement of blood pressure includes at least one first pressure cuff and one second pressure cuff of a comparable or identical size. The cuffs respectively include an inflatable pressure-measuring chamber and can be applied to a first and a second body part or body region respectively containing an artery of a comparable or identical size. The first pressure cuff has a first plethysmographic sensor device connected to a regulating and control device used to regulate the pressure in a first pressure measuring chamber by means of the measuring signal of the plethysmographic sensor device. The pressure measuring chamber is connected to at least one pressure sensor in order to obtain a pressure measuring signal. The pressure measuring chamber of the second pressure cuff is a reference pressure chamber that can be regulated at the same time as the pressure measuring chamber and independently therefrom. The pressure measuring chamber of the first pressure cuff and the reference pressure chamber of the second pressure cuff both have separate inlet waves and outer valves, and the pressure in the reference pressure chamber can be regulated by means of the regulating and control device according to a pre-determinable pressure function.